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Amendments to the Specification:

Please add the Sequence Listing attached hereto as **Exhibit 1** (3 pages) and also enclosed herein in computer readable form as the Sequence Listing for the subject application.

Please amend paragraph [0028] on page 6 as follows:

[0028] Unless otherwise indicated, "GLUTx" includes a GLUTx protein and a "GLUTx analogue", and also refers to GLUTx1 and GLUT8. As used herein, the "GLUTx protein" has the amino acid sequence corresponding to Genbank accession number XP_011828 (SEQ ID NO:1). A "GLUTx analogue", as used herein, is a functional variant of the GLUTx protein, having GLUTx biological activity, that has 60% or greater (preferably, 70% or greater) amino-acid-sequence homology with the GLUTx protein. A "GLUTx analogue" includes a variant of the GLUTx protein that has a homologous three-dimensional conformation. As further used herein, the term "GLUTx biological activity" refers to the activity of a protein or peptide that demonstrates an ability to function as an insulin-responsive and glycemia-sensitive glucose transporter, glucose sensor, or glucose receptor. GLUTx and GLUTx analogues may be produced synthetically or recombinantly, or may be isolated from native cells. GLUTx is preferably produced recombinantly, using conventional techniques and cDNA encoding GLUTx (Genbank accession number XM_011828).